

wherein the projector projects the light onto the holographic screen to produce real images on said holographic screen, wherein the holographic ray uniter is transparent to broad band ambient light, and wherein the narrow band light, scattered by the holographic screen, is guided to the viewer.

A' 2. (AMENDED) The imaging system, as claimed in claim 1, wherein a camera system, which is coupled to the projector, shoots images outside the motor vehicle to enable the view to at least one of the rear and the side.

3. (AMENDED) The imaging system, as claimed in claim 1, wherein the holographic ray uniter is arranged, from the viewer's view, at least one of, in front of and on, the windshield of the motor vehicle.

4. (AMENDED) The imaging system, as claimed in claim 1, wherein the ray uniter is a holographic mirror.

5. (AMENDED) The imaging system, as claimed in claim 1, wherein the ray uniter is a ray deflector with lens function.

6. (AMENDED) The imaging system, as claimed in claim 1, wherein the projector comprises lasers with the primary colors red, green and blue.

7. (AMENDED) The imaging system, as claimed in claim 1, wherein the projector comprises an image modulator.

8. (AMENDED) The imaging system, as claimed in claim 1, wherein the ray uniter is disposed on a transparent plate.

9. (AMENDED) The imaging system, as claimed in claim 1, wherein the holographic ray uniter and the holographic screen are arranged in such a manner that the virtual image appears for the viewer enlarged behind the windshield of the motor vehicle at a distance of at least 1.5 meters to the viewer.

10. (AMENDED) The imaging system, as claimed in claim 1, further comprising a device for coupling the imaging to the motor vehicle control functions.

11. (AMENDED) The imaging system, as claimed in claim 1, wherein at least one of the ray uniter and the holographic screen is designed and arranged in such a manner that the light cone coming from the ray uniter is limited to the possible dwelling space of the viewer's eyes.

12. (AMENDED) The imaging system, as claimed in claim 1, wherein at least one of the ray uniter and the holographic screen is designed and arranged in such a manner that they exhibit an imaging function.

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13. (AMENDED) A method for displaying images in motor vehicles comprising the steps of:

projecting images on a holographic screen;

guiding the light rays, coming from the holographic screen, into a viewer's eyes, producing virtual images in a surface cutout of the windshield of the motor vehicle by means of a hologram connected in series to the holographic screen to provide ray deflection.

14. (AMENDED) A method for displaying images in motor vehicles comprising the steps of:

projecting narrow band light of one or more wavelengths on a holographic screen, which is produced by holographic shooting of a real screen, to produce a real image on the holographic screen, and

guiding the light rays, scattered by the holographic screen at a predetermined solid angle, into a viewer's eye,

whereby the light rays are deflected through a hologram and produce a virtual image at the viewer, while simultaneously broad band light of the environment lying behind the hologram passes through the hologram.

15. (AMENDED) The method as claimed in claim 13, wherein images of the view from at least one of the rear and the perspective of the motor vehicle side mirrors are faded into the peripheral area of the windshield.

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16. (AMENDED) The method as claimed in claim 13, wherein the angular distance between the visual axis in the direction of travel and the virtual image is less than 30 degrees.

17. (AMENDED) The method as claimed in claim 13, wherein at least one of the rear and side images from the motor vehicle are displayed as a function of the driving state or the motor vehicle control functions.

(A copy of the marked-up version of amended claims 1-17 is attached to this Preliminary Amendment).

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Please ADD new claims 18-22 as follows:

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18. (NEW) The imaging system as claimed in claim 7, wherein the image modulator is at least one of ferroelectric modulators and micro-mirror devices.